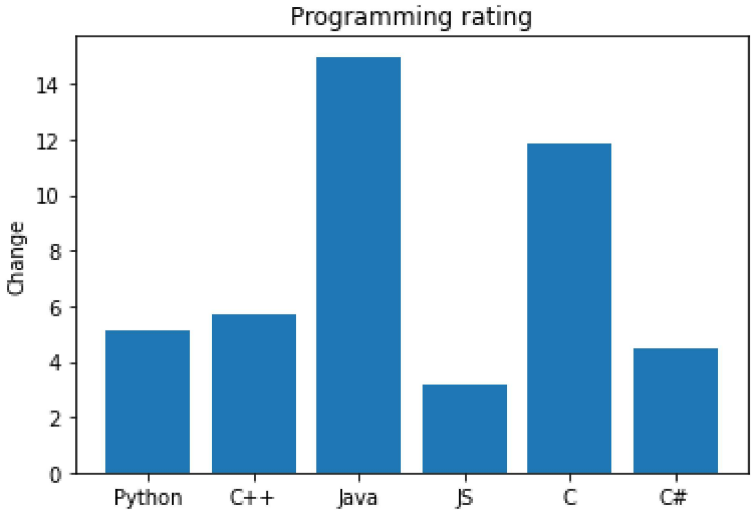
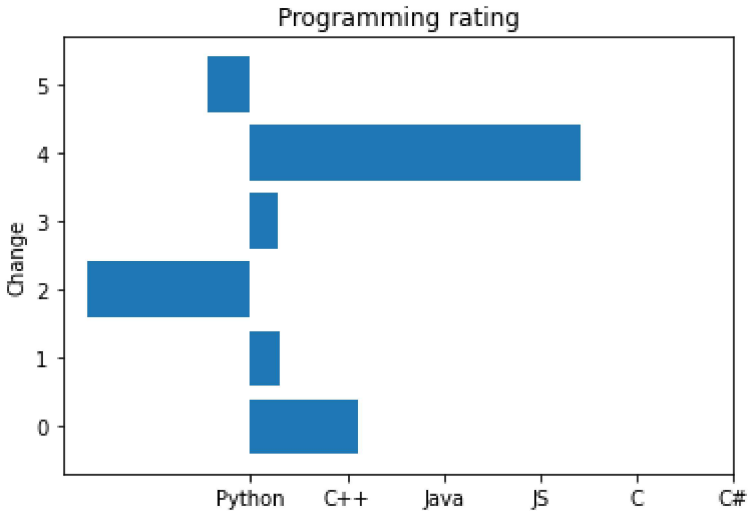
In [1]:
```
import numpy as np
import matplotlib.pyplot as plt
import warnings
warnings.filterwarnings('ignore')

labels = ["Python","C++","Java","JS","C","C#"]
index = np.arange(len(labels))
ratings = [5.16,5.73,14.99,3.17,11.86,4.45]
change = [1.12,0.3,-1.69,0.29,3.41,-0.45]
```

In [2]:
```
plt.bar(index,ratings)
plt.xticks(index,labels)
plt.ylabel("Change")
plt.title("Programming rating")
plt.show()
```

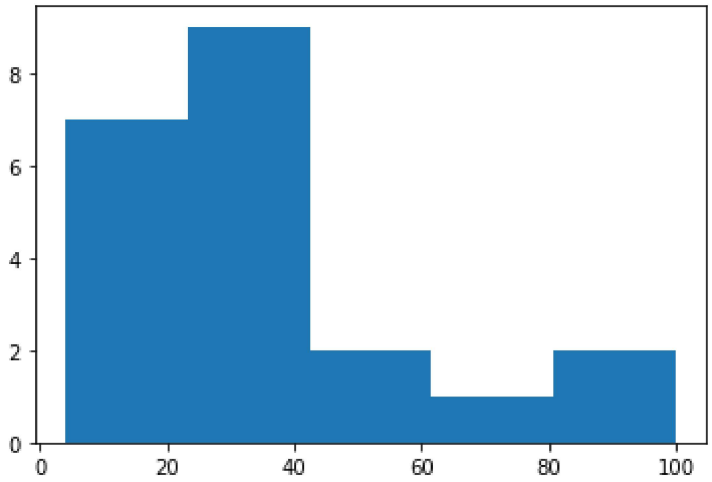


In [3]:
```
plt.barh(index,change)
plt.xticks(index,labels)
plt.ylabel("Change")
plt.title("Programming rating")
plt.show()
```



In [4]:
```
x = [21,42,23,4,5,26,77,88,9,10,31,32,33,34,35,36,37,18,49,50,100]
num_bins = 5
n, bins, patches = plt.hist(x,num_bins)
print(n)
print(bins)
print(patches)
plt.show()
```

```
[7. 9. 2. 1. 2.]
[  4.   23.2  42.4  61.6  80.8 100. ]
<BarContainer object of 5 artists>
```



In [5]:
```
x = np.linspace(0,10,50)
sinus = np.sin(x)
sinhs = np.sinh(x)
```

In [6]:
```
fig, ax = plt.subplots()
ax.plot(x,sinus,'r-o')
ax2 = ax.twinx()
ax2.plot(x,sinhs,'g--')
plt.show()
```